5th Grade Pacing Module 6 *with Suggested Modifications* **Key**

Optional Lesson

Extension Lesson

Remedial Lesson



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| Standards | Topic and Objectives | |  |
| **5.G.1** | A | Coordinate Systems  *Introduce Coordinate Systems with Whole Numbers using*  [Georgia Grade 5, pg12](https://www.georgiastandards.org/Georgia-Standards/Frameworks/5th-Math-Unit-7.pdf)   * Shoo-Fly (1 day) - will need the book Fly on the Ceiling by Julie Glass   Lesson 1: Construct a coordinate system on a line.  Lesson 2: Construct a coordinate system on a plane.  Lesson 3: Name points using coordinate pairs, and use the coordinate pairs to plot points.  Lesson 4: Name points using coordinate pairs, and use the coordinate pairs to plot points.  Lesson 5: Investigate patterns in vertical and horizontal lines, and interpret points on the plane as distances from the axes.  [Georgia Grade 5, pg 20](https://www.georgiastandards.org/Georgia-Standards/Frameworks/5th-Math-Unit-7.pdf)  Air Traffic Controller (1 day)  Lesson 6: Investigate patterns in vertical and horizontal lines, and interpret points on the plane as distances from the axes. | **Days: 6**  Do the Georgia Math game “Shoo-Fly” to introduce coordinate systems **before** starting the EngageNY lessons.  **Remedial Lesson 1**, it is a review of a number line.  Do the “Air Traffic Controller” game after Lesson 5. You will need shower curtain liners for the game.  **Extension Lesson 6**, it goes beyond the fifth grade standard. |
| By the end of Topic A, your students should be able to:   * Construct a coordinate system on a plane with fractional coordinates * Write a coordinate as (\_\_\_\_, \_\_\_\_) * Name and interpret points on a plane * Identify “x” and “y” axes   SBAC Released Items (see next page): | | | |
| **5.OA.2**  **5.OA.3**  **5.G.1** | B | Patterns in the Coordinate Plane and Graphing Number Patterns from Rules  [Georgia Grade 5](https://www.georgiastandards.org/Georgia-Standards/Frameworks/5th-Math-Unit-7.pdf), page 32: Earth Day Project (1 day)  Lesson 7: Plot points, use them to draw lines in the plane, and describe patterns within the coordinate pairs. **Use Lesson 11 sprint.**  Lesson 8: Generate a number pattern from a given rule, and plot the points.  [**Georgia Grade 5**](https://www.georgiastandards.org/Georgia-Standards/Frameworks/5th-Math-Unit-7.pdf)**, page 40: First to Arrive (1 day)**  Lesson 9: Generate two number patterns from given rules, plot the points, and analyze the patterns. **Use Lesson 12 sprint.**  ***Spend as much time as needed for students to explore relationships in the coordinate grid.***  **3-4 days** Contextual Problems: Real Life Scenarios and Patterns with changes in x and y  **Possible Resources to Use:**  [**Tri-Triangles**](http://www.insidemathematics.org/problems-of-the-month/pom-tritriangles.pdf) **Level B or C, SmarterBalanced Released Item**, [www.visualpatterns.org](http://www.visualpatterns.org)  **Video Examples:** [**Input and Output Table**](http://www.insidemathematics.org/index.php/classroom-video-visits/public-lessons-numerical-patterning/221-numerical-patterning-introduction-part-c) **,** [**Intro to Ratios**](http://commoncore.americaachieves.org/module/8) **(create a free account to watch this video)**  Students ***must be able to generate rules from a graphed equation, coordinate pairs and tables***. For example if given a table, they must be able to say, “The rule for x is add 3 and the rule for y is multiply by 2”  The following examples are things that they may be asked to do on the SmarterBalanced assessment:   * Evaluate the relationship between variables in a coordinate plane * Plot points based on rules for X and Y (x,y) * Identify the nth term in a sequence * Identify or create coordinate pairs based on rules   On the following two pages, you will find examples of released items. It is important for students to see the connection to real world context in these to make sense of the rules.  Lesson 10: Compare the lines and patterns generated by addition rules and multiplication rules.  Lesson 11: Analyze number patterns created from mixed operations.  Lesson 12: Create a rule to generate a number pattern, and plot the points. | **Days: 8 to 9**  **Lessons 10-12** are extensions because they go beyond the fifth grade standards. |
| By the end of Topic B, your students should be able to:   * Describe patterns with coordinate pairs * Generate a number pattern from a given rule and plot the points * Create a rule to generate a number pattern and plot the points * Analyze number patterns created from mixed operations   **SBAC Released Items (see next page):** | | | |
| *1 Day for Remediation and/or Enrichment*  **Do not use the Mid-Module Assessment** | | | |
| **5.G.1**  **5.G.2** | C | Drawing Figures in the Coordinate Plane  Lesson 13: Construct parallel line segments on a rectangular grid.  Lesson 14: Construct parallel line segments, and analyze relationships of the coordinate pairs.  Lesson 15: Construct perpendicular line segments on a rectangular grid.  Lesson 16: Construct perpendicular line segments, and analyze relationships of the coordinate pairs.  Lesson 17: Draw symmetric figures using distance and angle measure from the line of symmetry. | **Days: 1 (for Snapshot Assessment)**  **Lessons 13-17** are enrichment because they go beyond the fifth grade standards. |
| **5.OA.3**  **5.G.2** | D | Problem Solving in the Coordinate Plane  Lesson 18: Draw symmetric figures on the coordinate plane.  [**Problem Solving Task: Granny’s Balloon Trip**](http://www.insidemathematics.org/common-core-math-tasks/5th-grade/5-2007%20Granny%27s%20Balloon%20Trip.pdf) **(1 day)**  Lesson 19: Plot data on line graphs and analyze trends. **Use Lesson 29 sprint.**  Lesson 20: Use coordinate systems to solve real world problems. **Use Lesson 33 sprint.**  [**Georgia Unit 5**](https://www.georgiastandards.org/Common-Core/Common%20Core%20Frameworks/CCGPS_Math_5_Unit5FrameworkSE.pdf)**: What’s the Better Buy? (1 day)** | **Days: 4**  **Lesson 18** is enrichment because it goes beyond the fifth grade standard. |
| By the end of Topic D, your students should be able to:   * Plot data on line graphs * Analyze trends on a line graph * Use coordinate systems to solve real world problems | | | |
| *1 Day for Remediation and Enrichment-* **Do Not Use End of Module Assessment** | | | |
| 5.NF.2  5.NF.3  5.NF.6  5.NF.7c  5.MD.1  5.MD.5  5.G.2 | E | Multi-Step Word Problems  Lessons 21–25: Make sense of complex, multi-step problems and persevere in solving them.  Share and critique peer solutions. | **Days: 5**  Use [Visual Patterns](http://www.visualpatterns.org/) for practice generating rules for visual patterns, further practicing content of this module. |
| Review only. | | | |
|  | F | The Years in Review: A Reflection on *A Story of Units*  Lessons 26–27: Solidify writing and interpreting numerical expressions.  Lesson 28: Solidify fluency with Grade 5 skills.  Lessons 29─30: Solidify the vocabulary of geometry.  Lesson 31: Explore the Fibonacci sequence.  Lesson 32: Explore patterns in saving money.  Lessons 33–34: Design and construct boxes to house materials for summer use. | **Days: 2 to 3**  Use Lessons 26-34 enrichment/review activities as needed. |
| Review only. | | | |
| ***Total Instructional Days: 28 to 30*** | | | |

Links Used:

“Shoo Fly” Task, page 12; “Air Traffic Controller” Task, pg 20; “Earth Day Project” Task, pg 32; “First to Arrive” Task, pg 40: <https://www.georgiastandards.org/Georgia-Standards/Frameworks/5th-Math-Unit-7.pdf>

“Granny’s Balloon Trip” Task: <http://www.insidemathematics.org/assets/common-core-math-tasks/granny's%20balloon%20trip.pdf>

“What’s the Better Deal?” Task, page 43: <http://www.insidemathematics.org/assets/common-core-math-tasks/granny's%20balloon%20trip.pdf>

Visual Patterns Resource: <http://www.visualpatterns.org/>